

SECRET  
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WHAT IS CLAIMED IS:

1. An image recording method for sequentially recording images corresponding to image data of a parallax image string as strip- or dot-shaped hologram elements by causing an object light beam to fall on one of the surfaces of a recording medium for hologram and by causing a reference light beam to fall on the opposite surface thereof, characterized in that

an optical component is contacted with at least one surface of the recording medium for hologram and a liquid is interposed between said recording medium for hologram and said optical component.

2. The image recording method as claimed in claim 1 characterized in that said liquid is continuously supplied to a space between said recording medium for hologram and said optical component.

3. The image recording method as claimed in claim 1 characterized in that the optical component contacted with the recording medium for hologram via said liquid is a set of a one-dimensional diffusion plate and a louver film arranged on the object light beam incident side.

4. The image recording method as claimed in claim 1 characterized in that the optical component contacted with the recording medium for hologram via said liquid is a light inlet block arranged on the reference light inlet side and in that each image corresponding to the image data of the parallax image

string is recorded by the edge-lit system.

5. The image recording method as claimed in claim 4 characterized in that an index matching liquid for index matching between said recording medium for hologram and the light inlet block is used as said liquid.

6. An image recording method for sequentially recording images corresponding to image data of a parallax image string as strip- or dot-shaped hologram elements by causing an object light beam to fall on one of the surfaces of a recording medium for hologram and by causing a reference light beam to fall on the opposite surface thereof, comprising:

an optical component contacted with at least one of the surfaces of the recording medium for hologram; and

liquid supplying means for supplying a liquid to a space between said recording medium for hologram and the optical component.

7. The image recording apparatus as claimed in claim 6 characterized in that

said liquid supplying means continuously supplies the liquid.

8. The image recording apparatus as claimed in claim 6 characterized in that

the optical component contacted with said recording medium for hologram via said liquid is a set of a one-dimensional diffusion plate and a louver film arranged on the object light

beam incident side.

9. The image recording apparatus as claimed in claim 6 characterized in that

10. The image recording apparatus as claimed in claim 9 characterized in that an index matching liquid for index matching between said recording medium for hologram and the light inlet block is used as said liquid.

11. An image recording method characterized in that

12. An image recording apparatus comprising:

an object light beam is caused to fall on one of the surfaces of the recording medium for hologram and a reference light beam is caused to fall on the opposite surface via a light

inlet block for fabricating a holographic stereogram of an edge-lit system.

13. The image recording apparatus as claimed in claim 12 characterized in that

an optical element capable of transmitting the reference light beam and interrupting the object light beam is arranged between said light inlet block and the recording medium for hologram.

14. The image recording apparatus as claimed in claim 12 characterized in that

said light inlet block includes a light absorbing member, and in that

said light absorbing member plays the role of preventing the object light beam and the reference light beam falling on the light inlet block and reaching the recording medium for hologram from subsequently undergoing unneeded reflection in the light inlet block.

15. The image recording apparatus as claimed in claim 12 characterized in that

a film-shaped medium is used as said recording medium for hologram and in that

an image is recorded in a state in which the recording medium for hologram is directly contacted with said light inlet block.

16. The image recording apparatus as claimed in claim 12

characterized in that

said light inlet block is substantially columnar-shaped and is adapted for rotating with movement of said recording medium for hologram.

17. The image recording apparatus as claimed in claim 16 characterized in that

said light inlet block is adapted for being rotated with the recording medium for hologram being kept in contact with the light inlet block.

18. The image recording apparatus as claimed in claim 16 characterized in that

said light inlet block has an internal hollow portion in which is arranged a light absorbing member and in that

said light absorbing member plays the role of preventing the object light beam and the reference light beam falling on the light inlet block and reaching the recording medium for hologram from subsequently undergoing unneeded reflection in the light inlet block.

19. The image recording apparatus as claimed in claim 12 further comprising:

thrusting means for thrusting said light inlet block to said recording medium for hologram.

20. The image recording apparatus as claimed in claim 12 characterized in that

a recording medium for hologram having a cover sheet for

protecting a photosensitive portion is used as said recording medium for hologram and in that

cover sheet removing means is provided for peeling off the cover sheet from the recording medium for hologram before said recording medium for hologram is contacted with said light inlet block.

21. The image recording apparatus as claimed in claim 12 further comprising:

cleaning means for removing contamination from said light inlet block.

22. The image recording apparatus as claimed in claim 12 further comprising:

a one-dimensional diffusion plate on the object light beam inlet side in the vicinity of said recording medium for hologram.

23. An image reproducing method for reproducing a three-dimensional image recorded on a holographic stereogram of an edge-lit system by causing an object light beam and a reference light beam to fall on one and the other surfaces of a recording medium, respectively, characterized by

arranging a holographic stereogram on a surface of said light inlet block towards a viewer,

illuminating a reproducing illuminating light beam on the holographic stereogram via said light inlet block, and

reproducing the three-dimensional image by light diffracted when the reproducing illuminating light beam is transmitted

through said holographic stereogram.

24. An image reproducing apparatus for reproducing a three-dimensional image recorded on a holographic stereogram of an edge-lit system by causing an object light beam and a reference light beam to fall on one and the other surfaces of a recording medium, respectively, comprising:

a light inlet block having a holographic stereogram on its surface towards a viewer; and

a light source for illuminating a reproducing illuminating light beam via said light inlet block on said holographic stereogram;

the reproducing illuminating light beam from said light source being diffracted at the time of transmission through said holographic stereogram for reproducing the three-dimensional image.